

1. Ans: a

Explanation:

Important Literary sources

- Harsha-Charita by Banbhata
- **Vikramankadeva-charita by Bilhana**
- Navasahasrika-charita by Padmagupta
- **Rama-charita by Sandhyakara Nandi**
- **Bhojaprabandha by Ballal**
- Gaudavaho by Vakpatiraja
- **Kumarapala-charita by Hemachandra**
- Hammira-kavya by Nayachandra
- Prithviraj-Charita by Chand-Bardai
- Rajatarangini by Kalhana

Hence, option a is correct.

2. Ans: c

Explanation:

KINGDOMS IN DECCAN CHRONOLOGICALLY ARRANGED

SATAVAHANA

According to the Puranas, the Satvahanas killed the last Kanva ruler and became the master of Magadha in the last century B.C. Simuka is credited with founding the Satvahana dynasty in 27 B.C. or shortly before it. Satvahana rule ended in the 5th Century A.D. when the Vakatakas ruled in the Deccan.

Prominent rulers under Satavahana were Gautamiputra Satakarni, Pulumayi, and Yajna Satakarni.

VAKATAKAS

Vakatakas were the most powerful among the ruling dynasties that arose after the fall of the Satvahanas. Vindhyasakti was known as the founder of the Vakataka dynasty. He flourished in the third quarter of the third century A.D

Prominent rulers under Vakatakas are:- Pravarasena, Pudarsena, Pravasena II, Narendrasens.

CHALUKYAS

In about 540 A.D, one of Chalukaya chiefs, called Pulakesi, carved a small principality around Vatapipura [Badami in the Bijapur District] which henceforth its capital. Chalukyan power came to an end in 760 A.D

Prominent rulers under Chalukyas are Kirtivarman, Mangalesa, and Pulakesin

RASHTRAKUTAS

In early records of Deccan, the word Rashtrakuta is used as the official's name, which is indicated as the head of Rashtra. The first ruler of the family was Indra, who married a Chalukya princess. He was succeeded about 710 A.D. by his son Dantidurga, who founded the family's greatness.

Dantidurga began his career as a feudatory and took part in a famous campaign of his overlord, Vikramaditya II. In addition to Dantidurga, another prominent ruler of Rashtrakuta was Krishna. He died about 773 A.D. He consolidated Rashtrakuta's power through his conquests, but his greatest achievement was the building of the famous rock-cut temple of Kailshanath at Ellora.

Hence, option c is correct.

3. Ans: b

Explanation:

The Buddha's Body of Bliss is the presiding deity of the most important **Mahayana heaven, Sukhavati, the "Happy Land,"** where the blessed are reborn in the buds of lotuses, which rise from a lovely lake before the Buddha's throne.

This divine Buddha is usually called **Amitabha** [Immeasurable Glory] or **Amitayus** [Immeasurable Age].

Hence, option b is correct.

4. Ans: c

Explanation:

The **Empire of Ashoka** was not only vast in extent but was closely knit together as an administrative unit. One imperial writ ran from Peshawar to Bengal and from Kashmir to Mysore. That never happened again in ancient India and was rarely witnessed before the middle of the 19th century A.D. Ashoka's inscriptions further prove that there was one common language for the whole empire, and the same script was present except in a small region in the extreme north-west. Ashokan Empire thus brought about **political and cultural unity**, which is the dream of modern India, symbolized by her emblem of the capital of an Ashokan pillar.

Hence, statement 1 is correct.

At Dholavira, a fortified acropolis covering an area of 300x300 m, with gateways in the center of its four walls, Remains of limestone pillar bases and pillar fragments with highly polished surfaces were found in the eastern gateway. This discovery has extended the **history of monuments and stone structures in the subcontinent from the 4th century B.C. (Mauryan) to the 3rd millennium BCE [Indus Valley civilization era].**

Hence, statement 2 is correct.

The Ashokan inscriptions are divided into various categories. The two main categories are the 14 major rock edicts and the 6 pillar edicts. The rock and pillar edicts are a set of inscriptions that occur, with minor variations, in different places.

The minor rock edicts are considered among the earliest inscriptions, the major rock edicts later than them, and the pillar edicts still later.

Hence, statement 3 is incorrect.

5. Ans: a

Explanation:

There were the **six systems of salvation** - named the Saddarsana or “Six Doctrine.” They are named:- Nyaya, Vaisesika, Sankhya, Yoga, Mimamsa and Vedanta.

Nyaya [“Analysis”] is a **school of logic and epistemology rather than theology**. It looked back to the teacher Aksapda Gautama, the sutras or aphorisms attributed to whom are probably no earlier than the Christian era.

Logic was forced into the scheme as a means of salvation by the contention that clear thinking and logical argument were essential means to the highest bliss.

Hence, option a is correct.

Vaisesika [“the School of Individual Characteristics”] - While Nyaya specialized in logic, Vaisesika was interested rather in physics than theology. The earliest text of the school is the sutras of the founder “Uluka Kanada”.

The basic tenet of Vaisesika, held in common with Jainism and some schools of Buddhism, was that nature is atomic. Atoms are distinct from the soul, of which they are the instrument. Each element has individual characteristics [Visesas], which distinguish it from the four non-atomic substances [dravyas] that the school recognizes—time, space, soul, and mind.

Sankhya [“the count”]—Its founder was the ancient sage Kapila, but the earliest surviving text of the system is the Sankhyakarika of Isvarakrsna, perhaps from the 4th century A.D. Sankhya resembles Jainism in its rigid dualism and fundamental atheism. It teaches the existence of twenty-five basic principles [tattva].

Yoga - It is defined as the “spiritual discipline” or “application”. The term is loosely used to imply all the religious exercises and acts of self-mortification of Indian religion, the earnest follower of such practices being a yogi. This school emphasized psychic training as the chief means of salvation. The basic text of this school is the Yogasutras of Patanjali.

Mimamsa [“Enquiry”] - Its original purpose was to explain the Vedas, and it was virtually a survival of Brahmanism. The earliest work of the school is the sutras of Jamini, which set out to show that the Vedas are eternal, self-existent, and wholly authoritative and to defend their authenticity against all comers.

Vedanata [“the End of the Vedas”], also called Uttara Mimamsa [“later Mimamsa”], was a

doctrine based on the Upanisads that gave logical and organized form to their many mystical speculations. It has many sub-schools that help build the characteristics of modern intellectual Hinduism. The basic text of the system is the Brahma Sutra of Badarayana.

6. Ans: c

Explanation:

VIJAYANAGARA ARCHITECTURE

Vijayanagar empire reached its apogee in the 16th century. It shows features of both **Pandyan and Hoysala**.

Hence, statement 1 is incorrect.

The main shrine temples are an important feature of South Indian architecture. Along with the main shrine, **Amman, the god's chief wife, was provided with a shrine that was often nearly as large as the main shrine itself** and a **marriage hall [Kalayanmandapam]**, wherein the icons of god and goddess were ceremonially united on festival days.

Hence, statement 2 is correct.

Another feature of the Vijayanagara style is the profusion of strong yet delicate carvings that adorn the pillared halls, the many **columns** of which are so decorated that they become sculptures in their own right. Prancing, **horses**, vigorous and energetic leap from the sculptures.

One of the finest productions of Vijayanagara architecture is Vitthala Temple at

Hampi. **Hence, statement 3 is correct.**

7 Ans. a

Explanation:

As per Amarakosa **12 types of land - Urvara [fertile], Ushara [barren], Maru [desert], Aprahata [fallow], Shadvala [grassy]**, Pankila [muddy], Jalaprayamanupam [wet], kachcha [adjacent to water], Sharkara [full of pebbles and pieces of limestone], Sharkavati [sandy], Nadimatrika [watered by the river], and Devamatrika [watered by rain]

In addition to this, various other terms are mentioned in inscriptions. The term **kshetra** is used for a field, especially a cultivated field. **Khila** means tilled land or cultivable wasteland. **Aprahata**, too, means cultivable wasteland. The term **Aprada** refers to unsettled land. Vastu was habitat land.

Hence, option a is correct.

8. Ans: b

Explanation:

IQTADADRI SYSTEM

Illutmish divided the Empire into several Iqtas, which were assigned to various nobles. **Every Iqtadar had to maintain law and order and collect revenue.** After deducting his salary and the expenses of the government, he sent the surplus revenue to the Central Government. The Iqtadari system differed from the feudal system of Europe. **The Iqtadar were not owners of the land allotted to them.** They were mere functionaries. **They could be transferred from one assignment to another** and could even be deprived of their iqtas at the sweet will of Emperors.

Hence, statements 1 and 3 are correct.

9. Ans: c

Explanation:

The **Spoils of war** were known as **Ghanimah**. Legally, out of all the booty collected, one-fifth was kept for the state and the rest was to be distributed among the soldiers. However, it was lawful for the Sultan or Commander-in-Chief to select an animal, a sword, or some other article that particularly pleased him. The share of the state was known as Khams.

Hence, option c is correct.

10. Ans: a

Explanation:

To encourage agriculture, **Firoz Shah Tughlaq** paid great attention to irrigation. The sultan ordered the excavation of **two canals: one from the Sutlej and the other from the Jamuna.**

Hence, option a is correct.

In addition, the Sultan established a hospital in Delhi named **“Dar-ul-Shifa.”** He also established a new department of **“Diwan-i-khairat”** to provide for the marriage of poor girls.

11. Ans: d

Explanation:

The difference between actual aggregate demands and aggregate demand is required to establish the equilibrium at the full employment level of income.

Hence, statement 1 is correct.

The amount by which the actual aggregate demand exceeds the level of national income corresponding to full employment.

Excess of aggregate demand over aggregate supply of output. Both represent an inflationary gap.

Hence, statements 2 and 3 are incorrect.

12. Ans: a

Explanation:

Fiscal policy and investment

It is generally believed that there is an adverse effect of expansionary fiscal on private investment. According to this view, through increase in government spending financed by borrowing would bring about an increase in aggregate demand for goods and services. It would raise interest rates. Borrowing by the government would raise the demand for funds or money in the market which, given the supply of money, would cause interest rates to rise. **The higher interest rate would lower private investment. Thus, it is asserted that expansionary fiscal policy crowds out private investment.**

Hence, statement 1 is correct.

It can be avoided if as a part of expansionary fiscal policy tax policy of providing adequate investment tax credit to the business firms is adopted. Under investment tax credit policy, a deduction from the business income or profits equal to ascertain the percentage of investment made in machinery and equipment is allowed. As **this lowers the tax liability of the firm and reduces the cost of capital**, the policy of investment tax credit stimulates investment and will offset adverse effects on private investment of expansionary fiscal policy.

Hence, statement 2 is incorrect.

13. Ans: c

Explanation:

Real balance effect: The change in price level effect of the real value or purchasing value of money balances and monetary assets with fixed nominal values (such as bank deposits, bank rate) held by people. With a rise in prices, the real value of these assets falls. Conversely, if prices decrease, the real value of monetary assets increases, encouraging people to buy more. This is called the real balance effect.

Rate of interest effect: at a lower interest rate, investment demand which is part of aggregate demand will increase.

Foreign trade effect: A change in price level causes a change in foreign demand for goods; this is called the foreign trade effect.

At lower prices people buy more domestic goods compared to imported goods thus, aggregate demand increases.

Aggregate demand: it is the total desired quantity of goods and services that are bought by consumer households, private investors, government and foreigners at each possible price level, other things being held constant.

Hence, all statements are correct.

14. Ans: c

Explanation:

The quantity of real GDP when there is full employment of labour or when unemployment is at its natural rate is known as **potential GDP**.

Hence, option c is correct.

15. Ans: b

Explanation:

As a result of depreciation or devaluation, consequently an increase in exports and a decline in imports will increase the net aggregate demand for domestically produced goods. If domestically produced goods are cheaper, this may lead to more spending and **less savings**.

An increase in net aggregate demand will cause an expansion in output and therefore is likely to increase real GDP and consequently, **tax revenue for the government increases**.

Hence, statement 2 is correct.

Devaluation or depreciation can, therefore serve as a stimulus to the economy.

Hence, statement 1 is incorrect.

16. Ans: b

Explanation:

Transfer Pricing and Evasion of Local Taxes

Multinational corporations are usually vertically integrated. The production of commodities by multinational firms comprises various phases in its production. The components used in the production of a final commodity may be produced in its parent country or in its affiliates in other countries. **Transfer pricing refers to the prices a vertically integrated multinational firm charges for its components or parts used for the production of the final commodity**, say in India.

Hence, statement 1 is correct.

These prices of components or parts are not real prices as determined by the demand for and supply of them. They are arbitrarily fixed by the companies, so that they have to pay less taxes in India. **Multinational companies artificially inflate the transfer prices for intermediate products produced in their parent country or their overseas affiliates so as to show lower profits earned in India. As a result, they succeed in evading corporate income tax.**

Hence, statement 2 is correct.

17. Ans: d

Explanation:

The bank rate is meant for a **longer** intermediate period for regulating interest rates charged by the banks.

Repo and reverse repo operations are useful tools for **short-run** liquidity management by RBI.

Hence, both statements 1 and 2 are incorrect.

18. Ans: a

Explanation:

The Average number of times Money is transferred from one person to another in a given period of time is known as the velocity of circulation of money. In other words, the velocity of circulation is the average number of times that each unit of money is spent for purchases of goods and services.

The Velocity of circulation of money depends upon certain factors:

- 1. Quantity of Money**
- 2. Frequency of cash transactions**
- 3. Credit Facilities**
- 4. Size of Propensity to Consume**
- 5. Distribution of Income**

Hence, option a is correct.

19. Ans: b

Explanation;

MERITS OF DIRECT TAXES

1. Direct taxes are closely related to the ability to pay the principle.
2. **They are an important instrument for deducing inequalities of income and wealth.**
3. Unlike indirect taxes, they do not cause distortion in the allocation of resources.
4. **Revenue elasticity of direct taxes, especially if they are of progressive type, is quite high.**

DEMERITS OF DIRECT TAXES

1. They may reduce the supply of work effort.
2. Direct taxes reduce incentives to save and invest.
3. Corporate income tax adversely affects investment.

MERITS OF INDIRECT TAXES

1. Indirect taxes are convenient to pay and less cumbersome.
2. They have large revenue potential.
3. They are important instruments for influencing patterns of production and investment.

DEMERITS OF INDIRECT TAXES

1. Indirect taxes are regressive.
2. **They are also inflationary.**

Hence, option b is correct.

20. Ans: b

Explanation:

Aggregate monetary resource(AMR) includes currency with the public, demand deposits, and time deposits.

Hence, option b is correct.

21. Ans: d

Explanation:

Heat is redistributed across the planet through the Hadley, Ferrel, and polar cells. The Hadley cells move heat away from the equator, and the polar cells move heat towards the poles. The Ferrel cells are created by the interaction of the Hadley and polar cells. **Because of the Coriolis effect, the surface winds of the Hadley cells, Ferrel cells, and polar cells are diverted to the right in the northern hemisphere and to the left in the southern hemisphere.**

Hence, statement 1 is incorrect.

As a result, the prevailing surface winds blow from the east in the tropics and in polar regions and from the west in the temperate latitudes.

Hence, statement 2 is correct.

22. Ans: a

Explanation:

UNEP Global Resources Outlook sheds light on how resources are essential to the effective implementation of the Agenda 2030 and multilateral environmental agreements to tackle the triple planetary crisis.

Hence, option a is correct.

23. Ans: c

Explanation:

RE100 is the global corporate renewable energy initiative bringing together hundreds of large and ambitious businesses committed to **100% renewable energy**, the initiative is led by Climate Group.

Hence, option c is correct.

24. Ans: a

Explanation:

Blue baby syndrome or methemoglobinemia is caused due to Nitrate pollution

Hence, option a is correct.

25. Ans: d

Explanation:

Biogas is a mixture of Methane, carbon dioxide, hydrogen and hydrogen sulphide, the major constituent is methane.

Hence, statement 1 is incorrect.

Biogas is produced by the anaerobic degradation of animal waste and plant waste.

Hence, statement 2 is incorrect.

26. Ans: a

Explanation:

Overgrazing -35 %, deforestation – 30 %, Unsuitable farming – 28 %.

Hence, option a is correct.

27. Ans: a

Explanation:

Biotic factors-producers, consumers, decomposers

Hence, option a is correct.

Abiotic factors – Climatic factors, edaphic factors, geographical factors, energy, nutrients, and toxic substances.

28. Ans: c

Explanation:

The organisms present in Estuaries are highly tolerant to temperature and salinity.

Hence, statements 2 and 3 are correct.

29. Ans: a

Explanation:

Bacteria are very genetically adaptable, and when confronted repeatedly with antibiotics, mutational changes can occur, changes that lead to resistance to the antibiotic. The increased and widespread use of antibiotics is, therefore, developing antibiotic-resistant bacteria in the environment.

Activities linked to transportation in and around urban centers constitute one of the main sources of soil pollution because the emissions from internal combustion engines reach soils at more than a 100 m distance by atmospheric deposition and petrol spills.

Hence, all statements are correct.

30. Ans: c

Explanation:

Lithium-ion batteries that power everything from our smartphones and watches to electric vehicles.

Prior generations of rechargeable batteries used lead and acid, nickel-cadmium mixes, and nickel mixed with other materials. Lithium, however, is a lot less toxic, holds its charge better when not in use.

But its biggest advantage is Lithium is a lot lighter, it is eight times lighter than nickel, 16 times lighter than cadmium, and 30 times lighter than lead.

Hence, both statements are correct.

31. Ans: c

Explanation:

The procedure for summoning Lok Sabha for an emergency session is generally the same as for a regular session.

Hence, statement 1 is correct.

If the session is summoned at short notice and there is no time to issue the regular summons, members may be informed through Press and Electronic Media.

Hence, statement 2 is correct.

32. Ans: a

Explanation:

During the Constituent Assembly debate, Shri N. Gopaldaswami Ayyangar pointed out that the need for a Second Chamber had been felt practically all over the world wherever there were federations of any importance.

He said, **“The most that we expect the Second Chamber to do is perhaps to hold dignified debates on important issues and to delay legislation, which might be the outcome of passions of the moment until the passions have subsided and calm consideration could be bestowed on the measures that will be before the Legislature.”**

Whenever on any important matter, particularly matters relating to finance, there is conflict between the House of the People and the Council of States, it is the view of the House of the People that shall prevail.

Therefore, what we really achieve by the existence of this **Second Chamber is only an instrument by which we delay action that might be hastily conceived.**

We also give an opportunity, perhaps, to seasoned people who may not be in the thickest of the political fray but who might be willing to participate in the debate with an amount of learning and importance that we do not ordinarily associate with a House of the People. That is all that is proposed in regard to this Second Chamber.

Hence, statement 1 is correct.

The Fourth Schedule to the Constitution provides for the allocation of seats to the States and Union Territories in Rajya Sabha. The allocation of seats is made on the basis of the population of each State. Consequent to the reorganization of States and formation of new States, **the number of elected seats in the Rajya Sabha allotted to States and Union Territories has changed from time to time since 1952.**

Hence, statement 2 is correct.

The **origin of the second Chamber can be traced to the Montague-Chelmsford Report of 1918. The Government of India Act, 1919 provided for the creation of a ‘Council of State’ as a second chamber of the then legislature** with a restricted franchise, which actually came into existence in 1921.

Hence, statement 3 is incorrect.

Formation of Union territory of Ladakh without Legislature. — On and from the appointed day, there shall be formed a new Union territory to be known as the Union territory of Ladakh comprising the following territories of the existing State of Jammu and Kashmir, namely:—

“Kargil and Leh districts” and thereupon the said territories shall cease to form part of the existing State of Jammu and Kashmir.

Since the Union Territory of Ladakh does not have a legislature, **no seat is allocated to it. However, the Union Territories of Delhi, Puducherry, and Jammu and Kashmir have Legislative Assemblies, so they are represented in the Rajya Sabha.**

Hence, statement 4 is incorrect.

33. Ans: b

Explanation:

Article 14 applies to all persons, natural as well as juristic. Natural persons include all human beings male, female, and LGBTQs. Discrimination on the basis of sexual orientation or gender identity is also covered by Article 14. **A juristic person such as a corporation is also entitled to the right in this article.**

Hence, statement 1 is correct.

The principle of equality runs like a golden thread throughout the Constitution. **The first and foremost right which is guaranteed to all persons is the right to equality.** This is also justified by the fact that **whenever any other fundamental right is violated, Article 14 also gets violated.** Equality forbids inequalities, unfairness, and arbitrariness. The constitutional and legal articulation of equality forbids the State from denying equality to all men.

Hence, statement 2 is correct.

The right to equality under Article 14 of the Constitution is a vested right, and it is violated when equals are treated unequally.

A vested right is a property interest that belongs to a person unconditionally and cannot be taken away or impaired without their consent. It is an absolute right or title to something that can be enjoyed now or in the future. Vested rights are rights that have accrued to a person, as opposed to rights that they may or may not acquire.

Hence, statement 3 is incorrect.

34. Ans: b

Explanation:

Essentials of a Federal Constitution:

There are certain attributes which every Federal Constitution must contain

1. **Constitutional supremacy:** The Constitution of a federation must be supreme. It

should not be amenable to frequent amendments. Barring minor overlaps, both the center and the state should remain in their spheres while exercising powers. **The Judiciary is empowered to declare the laws enacted by the units or the Federal government to be unconstitutional On the grounds of violation of the division of powers and supremacy of the Constitution.**

Hence, statement 3 is correct.

2. **Written Constitution:** The Supremacy of the Constitution can not be maintained unless its provisions have been reduced in writing. Written provisions also bring predictability and certainty.

3. **Division of powers:** In the US, the situation was such that states did not want to lose their autonomy and ultimately the framers of the Constitution came with the idea of a weak federal government with limited powers by keeping the residuary powers with the states. As a result, the federal government of the US is known as a government of limited powers.

4. **Rigid amending Procedure:** The rigidity of a constitution means it can not be amended easily, however, it does not thereby become legally immutable **provisions regulating the status and powers of the federal and state governments should not be amenable to the amendments exclusively by the Federal government or the state government.**

Hence, statement 4 is correct.

5. **Federal court:** The function of the federal court with its power of Judicial review is to keep both the Centre and the States within the bounds set by the Constitution.

Exceptions to federalism in India:

Article 3- Parliament is empowered to reorganize states by either uniting two or more states dividing into two or more states or liquidating a state into Union territories. The States in India do not retain territorial integrity nor names or boundaries as the same may be altered by parliament.

Hence, statement 1 is incorrect.

Article 249 - It empowers the Rajya Sabha to empower parliament to pass law on any subject-matter mentioned in the state list by a resolution supported by not less than two-thirds of the members present and voting on the grounds of public interest. law, so enacted, lasts for one year at a time and its life can be extended by the upper house with similar resolution. Any such law may be applicable to the whole part or part of India.

Hence, statement 2 is incorrect.

35. Ans: b

Explanation:

In the interpretation of Article 21, Directive Principles of State Policy in Articles 39(a) and Article 41 are fundamental. **If there is an obligation upon the State to secure to its citizens an adequate means of livelihood and the right to work, it would be sheer pedantry to exclude the right to livelihood from the content of the right to life.**

The State may not, by affirmative action, be compelled to provide adequate means of livelihood or work to the citizens, but any person who is deprived of his right to livelihood except according to just and fair procedure established by law can challenge the deprivation as offending the right to life conferred by Article 21.

Hence, option b is correct.

36. Ans: b

Explanation:

There are certain prerequisites for the successful working of a parliamentary form of government. They are as follows:

- 1. The first prerequisite is the presence of a titular head of the government.**
2. The party in power should have a clear and stable majority in the legislature.
- 3. Another prerequisite is the responsibility of the ministry to the legislature.**
- 4. There should be existence of a spirit of moderation among the various political parties.** The party should never forget that a spirit of intolerance ultimately leads to the destruction of democracy itself.
- 5. The ministry in power must have the right to dissolution of the Legislature.**
6. Existence of secrecy among the members of the cabinet.

The fact that **the legislature and the executive are independent of each other is a feature of the Presidential system.**

Hence, option b is the correct answer.

37. Ans: c

Explanation:

During the absence of the Speaker from any joint sitting, the Deputy Speaker of Lok Sabha or if he is also absent, the Deputy Chairman of Rajya Sabha or if he too is absent, such other person as may be determined by the members present at the sitting, presides over the joint sitting.

The quorum to constitute a joint sitting is one-tenth of the total number of members of the two Houses.

Hence, statement 1 is incorrect.

When a Bill other than a Money Bill or a Constitutional Amendment Bill passed by one House is rejected by the other House or the Houses have finally disagreed as to the amendments made in the Bill or more than six months lapse from the date of the receipt of the Bill by the other House without the Bill being passed by it, the President may, unless the Bill has lapsed by reason of dissolution of Lok Sabha, notify to the Houses by message, if they are sitting, or by public notification, if they are not sitting, his intention to summon them to meet in a joint sitting.

This provision is only an enabling one, empowering the President to take a step for resolving a deadlock between the two Houses. **It is not obligatory upon the President to summon the two Houses to meet in a joint sitting.**

Hence, statement 2 is incorrect.

The Speaker presides over the joint sitting and the Secretary-General of Lok Sabha acts as Secretary-General of the joint sitting.

The Rules of Procedure of Lok Sabha apply with such modification and variations as the Speaker may consider necessary or appropriate.

If at a joint sitting of the House, the Bill referred to it is passed by a majority of the total number of members of both Houses present and voting, it is deemed, for the purposes of the Constitution, to have been passed by both Houses.

At a joint sitting, the Speaker, or the person acting as such, shall not vote in the first instance but shall have and exercise a casting vote in the case of equality of votes.

Hence, statement 3 is correct.

38. Ans: b

Explanation:

Section 4 of the Representation of Peoples Act

. Qualifications for membership of the House of the People.—

A person shall not be qualified to be chosen to fill a seat in the House of the People unless— (a) **in the case of a seat reserved for the Scheduled Castes in any State, he is a member of any of the Scheduled Castes, whether of that State or of any other State and is an elector for any Parliamentary constituency;**

Hence, statement 1 is incorrect.

(b) in the case of a seat reserved for the Scheduled Tribes in any State (other than those in the autonomous districts of Assam), he is a member of any of the Scheduled Tribes, whether of that State or of any other State (excluding the tribal areas of Assam), and is an elector for any Parliamentary constituency;

(c) in the case of a seat reserved for the Scheduled Tribes in the autonomous districts of Assam, he is a member of any of those Scheduled Tribes and is an elector for the Parliamentary constituency in which such seat is reserved or for any other Parliamentary constituency comprising any such autonomous district;

[(c) in the case of the seat reserved for the Scheduled Tribes in the Union territory of [Lakshadweep], he is a member of any of those Scheduled Tribes and is an elector for the Parliamentary constituency of that Union territory;

[(c) in the case of the seat allotted to the State of Sikkim, he is an elector for the Parliamentary constituency for Sikkim;]

Hence, statement 2 is correct.

(d) in the case of any other seat, he is an elector for any Parliamentary constituency.

Hence, statement 3 is correct.

39. Ans: a

Explanation:

Termination of a session of the House by an order made by the President under article 85(2) is called 'prorogation'.

The President, in exercising the power to prorogue the House, acts on the advice of the Prime Minister. The Prime Minister may consult the Cabinet before the advice is submitted to the President.

Prorogation of the House may take place any time, even while the House is sitting. Usually, however, **prorogation follows the adjournment of the sitting of the House sine die.**

Hence, statements 1 and 3 are correct.

Effects of Prorogation:

Prorogation terminates a session and does not constitute an interruption in the continuity of life of Lok Sabha; only by dissolution life of Lok Sabha can be brought to an end. **Bills: Under Article 107(3)**, Bills pending before either House are expressly saved from lapsing upon prorogation. Bills before Select or Joint Committees are also protected. Motions, Resolutions, and Amendments: **Under the Rules of Procedure, motions, resolutions, and amendments which have already been moved and are pending in the House do not lapse on prorogation and are carried over to the next session.**

Business pending before Parliamentary Committees: The Rules of Procedure specifically

provide that any business pending before a Committee shall not lapse by reason only of the prorogation of the House

On prorogation of either House of Parliament, the President has the power to issue Ordinances under Article 123.

Hence, statement 2 is incorrect.

40. Ans: b

Explanation:

Financial Bills may be divided into two categories: firstly, those which make provision for any of the matters specified to make a measure a Money Bill but do not consist solely of those matters and secondly, those which, if enacted and brought into operation, would involve expenditure from the Consolidated Fund of India .

Financial Bills of Category 'A'

A Financial Bill, falling under Category 'A,' can be introduced only in the Lok Sabha and requires the recommendation of the President for its introduction

. Such a Bill cannot as a rule be referred to a Joint Committee of the Houses. However, the Lok Sabha may, in special cases, refer such Bills to a Joint Committee after adopting a motion for suspension of the relevant rule. On one occasion, the Financial Bill of Category 'A' was referred to the Joint Committee

Financial Bills of Category 'B'

Where a Bill contains, inter alia, a proposal or proposals involving expenditure from the Consolidated Fund of India, e.g., by providing for the appointment of officers or other authorities or for the establishment of an institution, it becomes a Financial Bill of Category 'B'. Unlike a Money Bill or a Financial Bill of Category 'A', **a Financial Bill containing proposals that involve expenditure from the Consolidated Fund of India, i.e., of Category 'B' may be introduced in either House and it does not require any recommendation of the President for its introduction.**

The recommendation of the President is required for the introduction of a Money Bill. A Money Bill cannot be referred to a Joint Committee of the Houses.

Hence, statement 1 is incorrect and statement 2 is correct.

The Constitution distinguishes Money Bills from Financial Bills.

Hence, statement 3 is correct.

41. Ans: b

Explanation:

In summer when the sun is overhead, its rays fall almost vertically on the Earth,

concentrating its heat on a small area. Therefore, the temperature rises and summers are always warm.

Hence, statement 1 is incorrect.

In winter the oblique rays of the sun come through the atmosphere less directly and have much of their heat absorbed by atmospheric impurities and water vapour. The sun's rays fall faintly and spread over a great area.

Hence, statement 2 is correct.

42. Ans: d

Explanation:

AGHIL PASS

Aghil Pass lies in the North of K2 peak [the highest peak in India and the second highest peak in the world]. This pass is situated at an elevation of about 5000m above sea level and **joins the Ladakh region of India with the Xinjiang [Sinkiang] Province of China.** Being located at a high altitude and surrounded by lofty mountains, it remains snow-covered during the winter season and is closed from November and May.

Hence, both statements 1 and 2 are incorrect.

43. Ans: a

Explanation:

The world's distribution of earthquakes coincides very closely with that of volcanoes. Volcanoes are located in a clearly defined pattern around the world, closely related to regions that have been intensely folded or faulted.

Hence, statement 1 is correct.

It is said that as many as 70% of volcanoes and earthquakes occur in the Circum-Pacific belt, popularly termed as the 'Pacific Ring of Fire'. Another 20% of the volcanoes and earthquakes take place in the Mediterranean-Himalayan belt including Asia Minor, the Himalayas and parts of north-west China.

Hence, statement 2 is incorrect.

44. Ans: a

Explanation:

BHABAR REGION

The Bhabar is a narrow belt about 8-16 km wide running east-west along the foot of the Shivalik, with remarkable continuity from the Indus to the Tista. Rivers descending from the Himalayan deposit **their load along the foothills in the form of alluvial fans.**

Hence, statement 1 is correct.

These fans, consisting of gravel and unassorted sediments, have merged together to build up the Bhabar belt, which forms the northern boundary of the Great Plain. The porosity of the pebble-studded rock beds is so high that most of the streams sink and flow underground. Therefore, the area is marked by dry river courses except during rainy seasons. The Bhabar belt is comparatively narrow in the east and extensive in the western and northwestern hilly regions. **The area is not suitable for agriculture and only big trees with large roots thrive in this belt.**

Hence, statement 2 is incorrect.

45. Ans: d

Explanation:

The incoming solar radiation warms up the surface of the Earth. In turn, the Earth warms the layers of air above it by direct contact or conduction and through the transmission of heat by upward movement of air currents or convection. This radiation of heat by the Earth continues during the night when insolation from the sun cannot replace it. **The atmosphere is mainly heated by conduction from the Earth.**

Hence, statement 1 is incorrect.

Places near the Earth's surface are warmer than those higher up. Thus temperature decreases with increasing height above sea level. **This rate of decrease with altitude (lapse rate) is never constant, varying from place to place and from season to season. It is usually more in summer than in winter. Similarly, the lapse rate is greater by day than at night, and greater on elevated highlands than on level plains.**

Hence, statement 2 is incorrect.

46. Ans: c

Explanation:

The Strait of Malacca is a waterway connecting the Andaman Sea (Indian Ocean) and the South China Sea (Pacific Ocean).

The Strait of Malacca is the shortest sea route between India and China and, hence is one of the most heavily traveled shipping channels in the world. In early times, it helped to determine the direction of major Asian migrations of peoples through the Malay Archipelago.

Hence, statement 1 is correct.

The Strait of Malacca is part of the Sunda Shelf, which was a low-lying land surface around 2.6 million years ago. The strait is a narrow water channel in Southeast Asia, located between the Malay Peninsula and the eastern coast of Sumatra.

Hence, statement 2 is correct.

Many islets, fringed reefs, and sand ridges are found in the Malacca Strait. They are usually found in its southern part. The sand ridges are formed by the accumulated sediment and gravel deposited by rivers flowing from Sumatra.

Coral reefs are found in the Strait but are not well-developed due to high turbidity and sedimentation. Per a study, there is a lower coral population in the Malacca Strait compared to the coral reefs in the South China Sea.

Hence, statement 3 is correct.

47. Ans: b

Explanation:

The Krishna is the second-largest east-flowing river on the Peninsula. It rises in the western Ghats just to the north of the Mahabaleshwar, about 64km from the Arabian Sea, and flows for a distance of 1400 km to the Bay of Bengal in a generally easterly direction. The Koyana, the Ghataprabha, the Malprabha, the Bhima, the Tungabhadra, the Musi, and the Muneru and its important tributaries.

The Koyna is a small tributary, famous for its Koyna dam

The Bhima originates from the Matheron Hills and joins the Krishna 26 km from Raichur after flowing in the south-easterly direction for a distance of 861 km. Mula, Mutha, Ghod, and Nora are its sub-tributaries.

The Tungabhadra is formed by the unification of the Tunga and the Bhadra, which originate from Gangamula in the Central Sahyadri. Its total length is 153km.

Hence, option b is correct.

48. Ans: d

Explanation:

The most outstanding feature of the hot and wet equatorial type of climate is its **great uniformity of temperature throughout the year. There is no winter. Cloudiness and heavy precipitation help to moderate the daily temperature** so that even at the equator itself, the climate is not unbearable. In addition, regular land and sea breezes assist in

maintaining a truly equable climate. **The diurnal range of temperature is small, and so is the annual range.**

49. Ans: d

Explanation:

The tropical thorn forests are found in the north-western parts of the country including Rajasthan, south-western Punjab, western Haryana, Kachchh, and neighbouring parts of Saurashtra. Here, they degenerate into desert types in the Thar desert. **Such forests also grow on the leeward side of the Western Ghats covering large areas of Maharashtra, Karnataka, Telangana, Andhra Pradesh and Tamil Nadu.**

Hence, statement 1 is correct.

In the tropical thorn forest region, the trees are low (6 to 10 meters maximum) and widely scattered. Acacias are very prominent, widely and evenly spaced. **Euphorbias are also noticed.** The Indian wild date is common, especially in damper depressions. Some grasses also grow in the rainy season.

Hence, statements 2 and 3 are correct.

50. Ans: b

Both **Parcel and Spratly Island** belong to **the South China Sea.**

What is the South China Sea dispute?

The South China Sea is situated just south of the Chinese mainland and is bordered by Brunei, China, Indonesia, Malaysia, Philippines, Taiwan, and Vietnam. The countries have bickered over territorial control in the sea for centuries, but in recent years, tensions have soared to new heights.

The reason?

China's rise as a global power. The South China Sea is one of the most strategically critical maritime areas, and China is eyeing its control to assert more power over the region. China appears to be constructing an airstrip on a disputed South China Sea island that is also claimed by Vietnam and Taiwan.

The work on Triton Island in the Parcel group mirrors construction on seven human-made islands in the Spratly group to the east which have been equipped with airstrips, docks, and military systems. China claims virtually the entire South China Sea as its own, denying the

claims of others and defying an international ruling invalidating its assertion.

Hence, option b is correct.

51. Ans: b

Proteins are one of the most abundant organic molecules in living systems and have the most diverse range of functions of all macromolecules. Proteins may be structural, regulatory, contractile, or protective. **They may serve in transport and storage, or they may be used as toxins or enzymes.** Each cell in a living system may contain thousands of different proteins, each with a unique function. **The structures of proteins, like their functions, vary greatly. All proteins, however, are polymers made up of amino acids arranged in a linear sequence.**

Hence, statements 1 and 2 are correct.

Enzymes are proteins that speed up the rate of chemical reactions. Enzymes do this by decreasing the amount of activation energy needed to start the chemical reaction. Enzymes are usually complex proteins.

Some enzymes function as hormones. Hormones are molecules that are important for chemical signaling between cells.

Proteins also provide structural support for many cells

Proteins have different shapes. For example, hemoglobin is a globular protein, meaning it is shaped kind of like a globe. Its shape is important because it allows hemoglobin to attach and release oxygen molecules easily

Hence, statement 3 is incorrect.

52. Ans: a

The major source of funds for the panchayats is Local body Grants recommended by the finance commission.

Hence, option a is correct.

53. Ans: c

Explanation:

A cryogenic engine is a type of rocket engine that uses liquefied gasses as fuel and oxidizers. The term cryogenic refers to the fact that these liquefied gasses must be kept at cryogenic temperatures, that is, very low temperatures (below -150 degrees Centigrade).

Hence, statement 1 is correct.

A cryogenic engine will typically employ Liquid Oxygen (LOX) and Liquid Hydrogen (LH2) as propellants, instead of conventional rocket fuel options. As opposed to electric motors, whose power comes from rotating motion, cryogenic

engines are reaction engines. In order to work, they throw mass in one direction and rely on the reaction thrust in the opposite direction. A small amount of fuel goes to the turbine.

Hence, statement 2 is incorrect.

The advantages of cryogenic engines are:

More environmentally-friendly than other options

Non-toxic and non-corrosive

Able to reduce the cost of launch operations

Efficient and high-specific impulse

Safer than other options in terms of ground safety, they're non-hypergolic (Hypergolic igniting spontaneously upon contact with a complementary substance).

Hence, statement 3 is incorrect.

The disadvantages of this type of engine include:

Liquid Hydrogen presents a low-density

Their cryogenic storage requires complex equipment that must be carefully tailored by experts in cryogenic engineering

Presents the need for devising an ignition system

54. Ans: a

Explanation:

Lipid Nanoparticles (LNPs) have emerged across the pharmaceutical industry as promising vehicles for delivering various therapeutic drugs. The application of LNPs has also expanded to other fields, such as medical imaging, cosmetics, nutrition, agriculture, and other innovative fields such as nanoreactors. **LNPs are currently attracting attention as an important part of the COVID-19 mRNA vaccine,**

Hence, option a is correct.

55. Ans: c

Explanation:

mRNA—or messenger RNA—is a molecule that contains the instructions or recipe that directs the cells to make a protein using its natural machinery. To enter cells smoothly, mRNA travels within a protective bubble called a Lipid Nanoparticle. Once inside, our cells read the mRNA as a set of instructions, building proteins that match up with parts of the pathogen called antigens. The immune system sees these foreign antigens as invaders—dispatching defenders called antibodies and T-cells—and training the immune system for potential future attacks. So, if and when the real virus comes along, the body might recognize it—sounding the alarm to help defend against infection and illness.

mRNA instructs cells in the body to make specific proteins, and proteins play many essential roles in our bodies. **mRNA basically uses our own body and biological processes to**

potentially treat diseases and prevent infections.

Hence, statement 1 is correct.

Research partners Katalin Karikó and Drew Weissman at the University of Pennsylvania were able to engineer mRNA in a way that could get into cells without triggering the body's defenses. That breakthrough enabled continued scientific advances that led to the development and authorization of the first mRNA vaccines for COVID-19 in 2020 and solidified the promise of the technology.

Hence, statement 2 is correct.

56. Ans: c

Explanation:

TB is caused by bacteria (*Mycobacterium tuberculosis*) and it most often affects the lungs. TB is spread through the air when people with lung TB cough, sneeze or spit. A person needs to inhale only a few germs to become infected.

TB is the leading cause of death of people with HIV and also a major contributor to antimicrobial resistance.

Hence, statement 1 is incorrect.

About a quarter of the global population is estimated to have been infected with TB bacteria, but most people will not go on to develop TB disease, and some will clear the infection. Those who are infected but not (yet) ill with the disease cannot transmit it.

Hence, statement 2 is correct.

Common symptoms of TB disease include:

- Prolonged cough
- Chest pain
- Weakness or fatigue
- Weight loss
- Fever
- Night sweats

TB disease is curable. It is treated by a standard 6-month course of 4 antibiotics. Common drugs include rifampicin and isoniazid.

Emtricitabine and lamivudine are used in the treatment of HIV.

Hence, statement 3 is incorrect.

57. Ans: d

Explanation:

Indian Space Research Organisation (ISRO) on Thursday (May 9, 2024) successfully tested a liquid rocket engine made with the help of additive manufacturing technology — commonly known as 3D printing.

3D printing is a process that uses computer-created design to make three-dimensional objects layer by layer. **It is an additive process in which layers of a material like plastic, composites, or bio-materials are built up to construct objects that range in shape, size, rigidity, and colour**

3D printers construct the desired object by using a layering method, which is the complete opposite of the subtractive manufacturing processes

The (3D) printer generally acts the same as a traditional inkjet printer in the direct 3D printing process, where a nozzle moves back and forth while dispensing a wax or plastic-like polymer layer-by-layer, waiting for that layer to dry, then adding the next level. It essentially adds hundreds or thousands of 2D prints on top of one another to make a three-dimensional object,

Hence, all three statements are correct.

58. Ans: d

Explanation:

Since October 2021, WHO has recommended broad use of the RTS, S/AS01 malaria vaccine among children living in regions with moderate to high *P. falciparum* malaria transmission. The vaccine has been shown to significantly reduce malaria and deadly severe malaria, among young children. In October 2023, **WHO recommended a second safe and effective malaria vaccine, R21/Matrix-M**. The availability of two malaria vaccines is expected to make broad-scale deployment across Africa possible.

Hence, option d is correct.

59. Ans: b

Explanation:

Project-75 (India), also known as P-75(I), is a military acquisition initiative by the Ministry of Defence (MoD). The initiative aims to procure diesel-electric attack submarines with fuel cells and an Air-Independent Propulsion System (AIP) for the Indian Navy to build India's naval strength and develop indigenous submarine-building capabilities.

Hence, option b is correct.

60. Ans: c

Explanation:

India has the world's largest reserves of Thorium, estimated at 1.07 million tonnes, enough to last over a century. If India uses this Thorium, it can then produce enough green energy and easily turn net-zero by its target date of 2070.

Hence, statement 1 is correct.

However, Thorium is a fertile material and not a fissile material. This means it must be paired with Uranium-235 or Plutonium-239 to be used as fuel in a reactor. As neutrons from these fissile materials bombard Thorium, it mutates into Uranium-233, which is also a fissile material. So, to use the Thorium in India, you need sufficient stocks of Uranium-235 (which India has very little of), or Plutonium-239 (which is produced using Uranium-235). So, the question has been, how to use Thorium with minimal use of (precious) Uranium.

India has 25% of the world's thorium reserves, which is 400,000 tonnes, and has a unique position in the world for nuclear fuel resources. **Thorium is a radioactive element found in Kerala, Andhra Pradesh, Odisha, Tamil Nadu, and West Bengal, and is used to generate nuclear energy. The beach sands of Kerala and Orissa have rich reserves of monazite, which contains about 8–10% thorium.**

Hence, statement 2 is correct.

61. Ans: b

Explanation:

Amendments to certain provisions of the Constitution mentioned in the proviso to **Article 368(2)**. To bring about such amendments, apart from the requirement of a special majority, ratification of such amendments by half of the States is a must.

Amendments to the following Article are mentioned in the proviso:

(a) **Article 54, Article 55 (the manner of election of the president)**, Article 73 (the extent of the executive power of the Union), Article 241 (p provisions dealing with High Courts for Union territories), **Article 279- A(GST Council)**; or

Hence 2 and 4 are correct

- (b) Chapter IV of part V (Provisions dealing with Union Judiciary), Chapter V of Part VI (Provisions dealing with courts in the state); Chapter I of Parts XI (Provisions regarding the distribution of legislative power); or
- (c) Any of the Lists in the seventh schedule; or
- (d) the representation of States in Parliament; or
- (e) the provisions of Article 368.

62. Ans: b

Explanation:

Charter Act, 1833: The first beginnings of a central Legislature for India are to be found in the Charter Act of 1833 which introduced important changes in the system of Indian administration and also in the legislative powers of the Indian Government. It established one Legislative Council for all the British territories in India. **For the first time, the Governor General's government was known as the 'Government of India' and his council as the Indian Council'.**

Hence, option b is correct.

63. Ans: c

Explanation:

The Constitution provides that a judge of the Supreme Court shall hold office until he attains the age of 65 years. However, a judge may resign from his office by writing to the President.

Hence, statement 1 is correct.

Article 124(4) provides that a judge of the Supreme Court cannot be removed from his office except by an order of the President passed after an address by each House of Parliament supported by a majority of the total membership of that House of Parliament of that House and by a majority of not less than two-thirds of the members of the House present and voting and which has been presented to the President in the same session for such removal on the ground of proved misbehavior or incapacity. Article 124(5) provides that Parliament may by law regulate the procedure for the presentation of an address and for the investigation and proof of misbehavior or incapacity of a judge.

Hence, statement 2 is incorrect.

Article 129 provides that the Supreme Court is a court of record with all its powers, including the power to punish for contempt of itself and subordinate courts including High Courts.

Hence, statement 3 is correct.

64. Ans: b

Explanation:

The legislative power conferred on the President by Article 123 is **not** a parallel power of legislation. **The President is prohibited from promulgating Ordinances beyond the legislative competence of Parliament under the provision of Article 123.**

Hence, statement 1 is incorrect and statement 2 is correct.

65. Ans: a

Explanation:

A writ of certiorari lies only if a judicial or quasi-judicial decision is intended to be questioned. The main purpose of this writ is to remove the pending proceedings before the inferior court for adjudication by the superior court. **Administrative orders are not amenable to the writ of certiorari.**

A writ of certiorari can be issued to judicial or quasi-judicial bodies on grounds of want of jurisdiction or excess of jurisdiction or failure to exercise jurisdiction, violation of procedure or disregard of the principles of natural justice and error of law apparent on the face of the record. It would be issued where a court or tribunal has exercised a power that either it does not possess or has exceeded or failed to exercise the jurisdiction that it does not possess.

Hence, statement 1 is incorrect.

The writ of certiorari is also issued if there is a violation of the principles of natural justice. The concept of natural justice is a flexible one and its content depends upon the nature of the authority concerned.

A writ of certiorari can also be issued if there is an error of law.

Hence, statement 2 is correct.

While issuing a writ of certiorari, the court exercises a supervisory jurisdiction and not an appellate one.

Hence, statement 3 is incorrect.

66. Ans: c

Explanation:

Under the fractional reserve system a minimum percentage of deposits are kept as reserves to meet the withdrawals of the customers and the remaining deposits are given as loans, thus new deposits will be created.

Hence, option c is correct.

67. Ans: a

Explanation:

Fiscal Deficit can be corrected by increasing the revenue and decreasing expenditure.

Simplification of the tax structure and foreign aid increases the revenue, stoppage of subsidies - decreases the expenditure, and ultimately decreases Aggregate demand.

Hence, option a is correct.

68. Ans: c

Explanation:

Cyclical unemployment- Cyclical unemployment exists when individuals lose their jobs as a result of a downturn in aggregate demand

Structural unemployment -Structural unemployment occurs when certain industries decline because of long-term changes in market conditions.

Frictional unemployment, also called *search unemployment*, occurs when workers lose their current jobs and are in the process of finding another one.

Hence, option c is correct.

69 . Ans: b

Explanation:

Collateralized Borrowing and Lending Obligations (CBLOs)

The Clearing Corporation of India Ltd. (CCIL), the clearing agency, operates a market for CBLOs—a form of tripartite repo (approved by the RBI) that allows market participants to create borrowing facilities by placing collateral securities (government bonds and treasury bills) at the CCIL.

Borrowers can then bid for funds (up to their collateral's value less a discount margin) through the CBLO system—a transparent, electronic order book. CBLOs are an innovative technique unique to India, developed to supplement and possibly supplant the bilateral repomarket.

Clearing Corporation of India Ltd (CCIL): CCIL is a Central Counterparty (CCP) which was set up in April 2001 to provide clearing and settlement for transactions in Government securities, foreign exchange and money markets in the country. CCIL acts as a central counterparty in various segments of the financial markets regulated by the RBI, viz. the government securities segment i.e. outright, market repo and triparty repo, USD-INR and forex forward segments. Moreover, CCIL provides non-guaranteed settlement in the rupee-denominated interest rate derivatives like Interest Rate Swaps/Forward Rate Agreement market. It also provides non-guaranteed settlement of cross-currency trades to banks in India

through Continuous Linked Settlement (CLS) bank by acting as a third-party member of a CLS Bank settlement member.

Hence, option b is correct.

70. Ans: c

Explanation:

The Ministry of Statistics and Programme Implementation (MoSPI), Government of India developed a National Indicator Framework (NIF) in 2018 consisting of 306 national indicators.

The NIF includes indicators that align with the SDG global indicators and also includes indicators that are tailored to suit India's specific requirements.

Hence, option c is correct.

71. Ans: b

Explanation:

The black soil is also called regur (from the Telugu and Reguda) and black cotton soil because cotton is the most important crop grown on these soils. The black color of these soils has been attributed to the presence of a small proportion of titaniferous magnetite or even to iron and black constituents of the parent rock. **These soils have been formed due to the solidification of lava spread over large areas during volcanic activity in the Deccan Plateau thousands of years ago.**

The black soil is mainly found in Maharashtra, Madhya Pradesh, parts of Karnataka, Telangana, Andhra Pradesh, Gujarat, and Tamil Nadu.

The black soil is highly retentive of moisture. It swells greatly and becomes sticky when wet in the rainy season. However, in the hot dry season, the moisture evaporates, the soil shrinks, and is seamed with broad and deep cracks, often 10 to 15 cm wide and up to a meter deep. This allows oxygenation of the soil to sufficient depth due to which this soil is very fertile. **“Self ploughed”** by loosened particles falling from the ground into the cracks, the soil **“swallows”** itself and retains moisture.

Hence, option b is correct.

72. Ans: a

Explanation:

Australia has the largest iron ore resources and is also the largest producer of iron ore in the world.

WORLD'S TOP THREE IRON ORE PRODUCING COUNTRIES

1. Australia
2. Brazil
3. China
- 4. India**
5. Russia etc.

WORLD'S TOP THREE IRON ORE RESERVES COUNTRIES

1. Australia
2. Brazil
3. Russia
4. China
5. Ukraine and **India's position is 7th.**

Hence, statement 1 is correct.

Haematite, Magnetite, Limonite, and Siderite are the important ores of iron. Hence, statement 2 is correct.

Odisha state has the largest reserves of iron ore in India, followed by **Karnataka and Chattisgarh.**

Hence, statement 3 is incorrect.

73. Ans: b

Explanation:

RANGANATHITTU BIRD SANCTUARY

Ranganathittu Bird Sanctuary (also known as **Pakshi Kashi of Karnataka**) is a bird sanctuary in the Mandya District of Karnataka, India. It is the largest bird sanctuary in the state, 40 acres in area, and comprises six islets on **the banks of the Kaveri River. Hence, statement 1 is incorrect.**

The sanctuary has been designated on 15 February 2022 as a protected **Ramsar site** since 2022.

Hence, statement 2 is correct.

74. Ans: d

Explanation:

Of all the neighboring countries, India's 4,096 km-long border with Bangladesh is the longest and accounts for nearly 27% of the country's total land border. **As many as five Indian states share the international boundary with Bangladesh. These are West Bengal, Assam, Meghalaya, Tripura and Mizoram.**

Hence, statement 1 is incorrect.

The boundary line between India and Bangladesh crisscrosses the vast Ganga- Brahmaputra delta. **This boundary runs through an entirely flat country, in which there is not even a small mound or hill that could be used for demarcating the boundary between the two countries.**

Therefore, it is a very unsatisfactory border because it fails to separate the people living on either side of the frontier.

Hence, statement 2 is incorrect.

75. Ans: c

Explanation:

Highest Point Location

Prasnath Hill: Chotanagpur Plateau
Malaygiri: Garhjat Hills
Dodabetta : Nilgiri Hills

The Dodabetta in the Nilgiri hills is the second-highest peak of the peninsular plateau. **It is also the highest peak in the Nilgiri Hills, located in the district of Tamil Nadu.** The name Dodabetta literally means 'Big mountain' in the Badugu Language, It is at the junction of the Western and Eastern Ghats and offers beautiful vistas of the Nilgiri Hills range.

76. Ans: a

Explanation:

The Sikh community came into prominence in the fifteenth and sixteenth centuries. These were periods of religious revival in the history of India. The founder of the Sikhs as a religious community was Guru Nanak. The next four gurus -Angad, Amardas, Ramdas, and Arjan Mal - were religious preachers and did not interfere in politics. **The fifth guru Arjan Mal [1581-1606] compiled the Adi Granth or "The First Sacred Book"**

Hence, statement 1 is correct.

Guru Govind Singh was the tenth guru and was one of the most remarkable personalities in Indian history. He brought about the transformation of the Sikh community. In his **autobiography Bichitra Natak**, he declared his purpose of “spreading the faith, saving the saints and anticipating all tyrants” He converted his disciples into a community of warriors called Khalsa.

Hence, statement 2 is incorrect.

Later the Sikhs founded a leader in **Kapur Singh**, who began organizing what was later developed as the **Dal Khalsa** or the army of the theocracy of the Singhs.

Hence, statement 3 is incorrect.

77. Ans: b

Explanation:

COMMUNAL AWARDS [1932]

Ramsay MacDonald gave his famous “award” known as the Communal Award on 16th August 1932. The scope of the award was purposely confined to the arrangement to be made for the representation of the Central Legislative being deferred for the time being as that involved a question of the representation of the Indian state.

According to the Award, voters were to elect the seats allotted to Muslim, European, and Sikh constituencies by voting for separate communal electorates covering the whole area of **provinces**.

Hence, statement 1 is incorrect.

All qualified voters who were not Muslim, Sikh, Indian-Christian, Anglo-Indian, or European constituencies were entitled to vote in a general constituency.

Hence, statement 2 is correct.

The members of the depressed classes were qualified to vote in a general constituency. However, special seats were to be filled up by election from special constituencies in which only the members of the depressed classes electorally qualified were to be entitled to vote. **Any person voting in a special constituency was also entitled to vote in a general constituency.**

Hence, statement 3 is correct

78. Ans: a

Explanation:

Under **Rippon Resolution of 1882**:- The Local Government was directed to hand over to the Local Board complete control over the local rates and cesses, licenses, tax assessment and collections, pounds and ferry-receipts, etc. **The Local Bodies were also to be granted lump sum grants from the provincial revenues.**

Hence, option a is correct.

79. Ans: b

Explanation:

MAIN PROVISIONS OF THE GOVERNMENT OF INDIA ACT 1919

- The Secretary of State for India was previously paid out of the Indian Revenues. The new Act provided that he would be paid out of the British Revenues in the future.
- The Act of 1919 established a bicameral legislature of the Center in place of the Imperial Council, which consisted of one House. The two Houses of the bicameral legislature were the Central Legislative Assembly and the Council of the State.
- **The Governor-General was given the power to summon, prorogue, and dissolve the chamber.**

Hence, statement b is correct.

- The previous sanction of the Governor-General was required to introduce bills concerning the following subjects:-
 - o The public debt or public revenues of India.
 - o Religion or religious rites and usages of the British subjects of India.
 - o Discipline or maintenance of His Majesty's military, naval, or air forces.
 - o Relations of the Government of India with foreign States or Indian States.
 - o Any measure which repeals or amends any Act of a legislature or any ordinance made by the Governor-General, etc.
- The new Act provided for two lists of subjects: the Central List and the Provincial List. • The Act of 1919 also introduced dyarchy in the provinces.

80. Ans: c

Explanation:

THE QUIT INDIA MOVEMENT

During **the Quit India Movement, Gandhiji refused to condemn the violence** of the people because he saw it as a reaction to the much bigger violence of the state. The great significance of this historic movement was that it placed the **demand for independence on the immediate agenda of the national movement**. After "Quit India," there could be no retreat. Any future negotiations with the British Government could only be on the manner of power transfer. Independence was no longer a matter of bargaining, and this became amply clear after the movement.

Hence, statements 1 and 2 are correct.

81. Ans: c

Explanation:

Females are larger than males.

The gestation period is 9-11 months and a female gives birth to only one calf, once in 2-3 years.

Hence, option c is correct.

82. Ans: b

Explanation:

The average life span of a tiger in the wild is about **14 to 16 years.**

Indian Tiger is an **endangered** animal and is listed in Schedule I of the **Wildlife (Protection) Act, of 1972**. This act gives it protection against hunting/poaching and trade for skins, bones, and body parts

Hence, option b is correct.

83. Ans: c

Explanation:

Compost increases the soil organic matter in addition to adding nutrients to the soil. Generally, compost contains relatively low concentrations of nitrogen, phosphorus, and potassium compared to manure.

Hence, option c is correct.

84. Ans: a

Explanation:

Kashmir Stag or Hangul is one of the most critically endangered species found in the temperate rangelands of western Himalayas. **Dachigam National Park in Kashmir represents one such grassland habitat that supports Hangul, a highly threatened and the only subspecies of the Red deer (*Cervus elaphus*) to be found in India, which is now confined only to the Kashmir Valley.**

Hence, option a is correct.

85. Ans: b

Explanation:

Red Tides refer to toxic groups of microscopic algae that occur World wide , red tide produces extremely potent bio toxins when such bio toxins accumulate in the food chain cause massive mortalities of fish and Marine mammals ,impacts humans .

Hence, option b is correct.

86. Ans: c

Explanation:

The Bletchley Declaration is an agreement signed by countries including the US, the UK, China, Australia, Brazil, India, and the European Union. The countries have mutually agreed that while AI has the potential to transform and enhance human well-being, peace, and prosperity, it also poses significant risks, including in those domains of daily life.

Hence, option c is correct.

87. Ans: a

Explanation:

The **C5+1** is a diplomatic summit that has been held every year since 2015 between the foreign ministers of the five Central Asian countries of **Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan, with the United States Secretary of State** to discuss and work on common issues of concern to improve and strengthen the U.S. relationship with the five Central Asian states.

Hence, option a is correct.

88. Ans: b

Explanation:

China's People's Liberation Army (PLA) over the past four years has been stepping up the operational tempo of military exercises around two strategically pivotal waterways—the Bashi Channel and Miyako Strait—that guard the exit from or entry into the China Seas.

The Bashi Channel, connecting the South China Sea with the western Pacific Ocean, runs

between the Philippines' northern island of Luzon and the Taiwanese island of Orchid. The Miyako Strait runs between the Japanese islands of Miyako and Okinawa and provides a small passageway with international waters and airspace through Japan's exclusive economic zone. Both waterways constitute the principal entryway for the People's Liberation Army Navy (PLAN) into the Pacific Ocean.

Hence, option b is correct.

89. Ans: b

Explanation:

Following the 1948 War, UNRWA was established by **United Nations General Assembly Resolution 302 (IV) of 8 December 1949 to carry out direct relief and work programs for Palestine refugees**. The Agency began operations on 1 May 1950.

Hence, statement 2 is correct.

The United Nations Relief and Works Agency for Palestine Refugees (UNRWA) is funded almost entirely by voluntary contributions from UN Member States. UNRWA also receives some funding from the Regular Budget of the United Nations, which is used mostly for international staffing costs.

The Agency's services encompass education, health care, relief and social services, camp infrastructure and improvement, microfinance and emergency assistance, including in times of armed conflict.

Hence, statement 1 is incorrect.

90. Ans: c

Explanation:

On September 15, 2020, **leaders across the Middle East signed the Abraham Accords**. This landmark agreement normalized diplomatic relations between Israel and the United Arab Emirates and Bahrain, then later a renewal in ties with Morocco. The Abraham Accords are a game changer in the Middle East, providing new opportunities for direct flights, people-to-people exchanges, business partnerships, and government agreements that have all led to investment and growth in the area.

Hence, option c is correct.

91. Ans: b

Explanation:

At the June 2022 G7 Leaders' Summit, President Biden and G7 leaders formally launched the Partnership for Global Infrastructure and Investment (PGI) — a values driven, high-impact, and transparent infrastructure partnership to meet the enormous infrastructure needs of low- and middle-income countries and support the United States' and its allies' economic and national security interests.

Hence, statement 1 is incorrect.

The IMEC comprises of an Eastern Corridor connecting India to the Gulf region and a Northern Corridor connecting the Gulf region to Europe. It will include a railway and ship rail transit network and road transport routes.

Hence, statement 2 is correct.

92. Ans: a

Explanation:

Constitution of State Board for Wild Life.—(1) The State Government shall, within a period of six months from the date of commencement of the **Wild Life (Protection) Amendment Act, 2002** (16 of 2003) constitute a State Board for Wild Life consisting of the following members, namely:— (a) the Chief Minister of the State and in case of the Union territory, either Chief Minister or Administrator, as the case may be - Chairperson; (b) the Minister-in-charge of Forests and Wild Life - Vice-Chairperson;

Hence, option a is correct.

93. Ans: c

Explanation:

In India, the leopard is found in all forest types, from tropical rainforests to temperate deciduous and alpine coniferous forests.

It shares its territory with the tiger in 17 states.

Hence, both statements 1 and 2 are correct.

94. Ans: b

Explanation:

The most important factors in Nitrogen mineralization are (1) soil moisture temperature, (2) soil texture and mineralogy, (3) tillage practices, and (4) the carbon-to-nitrogen ratio (C: N). \

Hence, all are correct.

95. Ans: d

Explanation:

Venture capital is part of the capital market

Mutual funds collect money from the public and issue units

Venture capital (VC) is generally used to support startups and other businesses with the potential for substantial and rapid growth

Hence, option d is correct.

96. Ans: b

Explanation:

Legislative acts are classified as :

'**substantive acts,**' on the basis of the subject matter of the law;

and '**procedural acts**' on the basis of the procedure to be followed in the implementation of those laws.

Repealing acts are those by which earlier statutes have been repealed, Amending acts modify/amend the existing laws.

Hence, option b is correct.

97. Ans: b

Explanation:

Article 43. Living wage, etc., for workers.—The State shall endeavor to secure, by suitable legislation or economic organization or in any other way, to all workers, agricultural, industrial or otherwise, work, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities and, in particular, the State shall endeavor to promote cottage industries on an individual or co-operative basis in rural areas.

Hence, option b is correct.

98. Ans: c

Explanation:

Climate change causes

Release of greenhouse gases in the atmosphere – **anthropogenic**

Natural causes – changes in Earth’s orbit, volcanic eruptions, Variation in Solar Radiation, plate tectonics, and El Niño-Southern Oscillation (ENSO).

Hence, option c is correct.

99. Ans: c

Explanation:

The Rabatak Inscription is a stone inscription found in 1993 near the village of Rabatak in Afghanistan. The inscription is written in the Bactrian language and Greek script and is considered a valuable source of information about the Kushan emperor **Kanishka**.

Hence, option c is correct.

100. Ans: a

Explanation:

Swami Shiv Dayal - Radha soami Satsang

Pandit Deen Dayal Sharma – Bharat Dharma Maha Mandal

Guru Ghasidas – Satnami sect

Dadoba pandurang – Paramahansa Mandali

Hence, option a is correct.